IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with strikethrough. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims, AMEND claims, and ADD new claims, in accordance with the following:

1. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

inputting means for inputting a second program obtained by correcting position/orientation errors at taught points of a first program based on operation of the robot, the first program being prepared and stored by the offline programming system;

determining means for determining correction amounts of position/orientation at the taught points of the first program based on the stored first program and the inputted second program;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught point of the first program using the offline programming system, based on the determined correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

amending means for amending positions/orientations at taught points of a third program obtained by modifying the first program by the new taught points and/or the modified taught points, using the expected correction amounts to prepare a fourth program, and outputting the fourth program.

2. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

inputting means for inputting a second program obtained by correcting position/orientation errors at taught points of a first program based on operation of the robot, the first program being prepared and stored by the offline programming system;

determining means for determining correction amounts of position/orientation at the

taught points of the first program based on the stored first program and the inputted second program; and

amending means for amending position/orientation at taught points of a third program obtained by modifying the first program using the offline programming system based on the determined correction amounts of position/orientation at the taught points of the first program to prepare a fourth program, and outputting the fourth program.

3.   (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

inputting means for inputting a second program obtained by correcting position/orientation errors at taught points of a first program based on operation of the robot, the first program being prepared and stored by the offline programming system;

determining means for determining correction amounts of position/orientation at the taught points of the first program based on the stored first program and the inputted second program;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught point of the first program using the offline programming system, based on the determined correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

outputting means for outputting a third program obtained by modifying the first program by the new taught points and/or the modified taught points, and correction amounts of taught points of the third program including the expected correction amounts as separate files.

4.   (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

inputting means for inputting a second program obtained by correcting position/orientation errors at taught points of a first program based on operation of the robot, the first program being prepared and stored by the offline programming system;

determining means for determining correction amounts of position/orientation at the taught points of the first program based on the stored first program and the inputted second program; and

outputting means for outputting a third program obtained by modifying the first program

using the offline programming system, and the determined correction amounts for taught points of the third program as separate files.

5. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

storage means storing correction amounts of position/orientation errors at taught points of a first program determined based on operation of the robot, the first program being prepared by the offline programming system;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught points of the first program using the offline programming system, based on the stored correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

amending means for amending positions/orientations at taught points of a second program obtained by modifying the first program by the new taught points and/or the modified taught points, using the expected correction amounts to prepare a third program, and outputting the third program.

6. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

storage means storing correction amounts of position/orientation errors at taught points of a first program determined based on operation of the robot, the first program being prepared by the offline programming system; and

amending means for amending position/orientation at taught points of a second program obtained by modifying the first program using the offline programming system based on the stored correction amounts of position/orientation at the taught points of the first program to prepare a third program, and outputting the third program.

7. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

storage means storing correction amounts of position/orientation errors at taught points of a first program determined based on operation of the robot, the first program being prepared by the offline programming system;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught points of the first program using the offline programming system, based on the stored correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

outputting means for outputting a second program obtained by modifying the first program by the new taught points and/or the modified taught points, and correction amounts of taught points of the second program including the expected correction amounts as separate files.

8.   (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot, comprising:

storage means storing correction amounts of position/orientation errors at taught points of a first program determined based on operation of the robot, the first program being prepared by the offline programming system; and

outputting means for outputting a second program obtained by modifying the first program using the offline programming system, and the stored correction amounts for taught points of the second program as separate files.

9.   (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot by a robot controller, comprising:

inputting means for inputting correction amounts of position/orientation errors at taught points of a first program from the robot controller, which are determined based on operation of the robot, the first program being prepared by the offline programming system;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught points of the first program using the offline programming system, based on the inputted correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

amending means for amending positions/orientations at taught points of a second program obtained by modifying the first program by the new taught points and/or the modified taught points, using the expected correction amounts to prepare a third program, and outputting

the third program.

10. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot by a robot controller, comprising:

inputting means for inputting correction amounts of position/orientation errors at taught points of a first program from the robot controller, which are determined based on operation of the robot, the first program being prepared by the offline programming system; and

amending means for amending position/orientation at taught points of a second program obtained by modifying the first program using the offline programming system based on the inputted correction amounts of position/orientation at the taught points of the first program to prepare a third program, and outputting the third program.

11. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot by a robot controller, comprising:

inputting means for inputting correction amounts of position/orientation errors at taught points of a first program from the robot controller, which are determined based on operation of the robot, the first program being prepared by the offline programming system;

calculating means for calculating an expected correction amount of position/orientation at each of new taught points added to the first program and/or modified taught points defined by modifying position/orientation at the taught points of the first program using the offline programming system, based on the inputted correction amounts of position/orientation at taught points of the first program which are positioned in the vicinity of each of the added taught points or the modified taught points; and

outputting means for outputting a second program obtained by modifying the first program by the new taught points and/or the modified taught points, and correction amounts of taught points of the second program including the expected correction amounts as separate files.

12. (ORIGINAL) An offline programming system for preparing and modifying a program for operating a robot by a robot controller, comprising:

inputting means for inputting correction amounts of position/orientation errors at taught points of a first program from the robot controller, which are determined based on operation of the robot, the first program being prepared by the offline programming system; and

outputting means for outputting a second program obtained by modifying the first

program using the offline programming system, and the inputted correction amounts for taught points of the second program as separate files.

13.   (CURRENTLY AMENDED) An offline programming system according to ~~any one of claim 1, 3, 5, 7, 9 and 11~~ claim 1, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any of the determined distances is equal to or larger than the predetermined distance.

14.   (NEW) An offline programming system according to claim 3, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any of the determined distances is equal to or larger than the predetermined distance.

15.   (NEW) An offline programming system according to claim 5, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any of the determined distances is equal to or larger than the predetermined distance.

16.   (NEW) An offline programming system according to claim 7, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any

of the determined distances is equal to or larger than the predetermined distance.

17.   (NEW) An offline programming system according to claim 9, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any of the determined distances is equal to or larger than the predetermined distance.

18.   (NEW) An offline programming system according to claim 11, wherein said calculation means comprises: means for determining distances from each of the new taught points or the modified taught points to the taught points in the vicinity of each of the new taught points or the modified taught points; and means for judging whether any of the determined distances is equal to or larger than a predetermined distance, wherein the expected correction amount of the new taught point or the modified taught point is set to zero, if it is judged that any of the determined distances is equal to or larger than the predetermined distance.